

# Primary Squamous Cell Carcinoma (SCC) of the Sigmoid Colon: A rare location & histological subtype of colorectal carcinoma (CRC)

Astrid Sacasa MD, MPH; Mohtashim Naeem MD; Stachyse Stanis

Pathology, HCA Florida Westside Hospital; NOVA Southeastern University



## Introduction

In the U.S., colorectal cancer (CRC) is the third leading cause of cancer-related deaths in women and men. The most common type is adenocarcinoma, but other types including neuroendocrine, squamous cell, and spindle cell carcinomas may occur.

Squamous cell carcinoma of the sigmoid colon is a rare CRC subtype with an aggressive behavior and poor prognosis with a 5-year overall survival rate of about less than 50%. It most frequently occurs in the right colon, and least commonly in the sigmoid colon. Similar CRC symptoms no matter the subtype can range from asymptomatic to rectal bleeding, abdominal pain, change in bowel habits, and weight loss. Here, we describe a case of basaloid type, primary squamous cell carcinoma of the sigmoid colon.

## Methods

The patient is a 71-year-old female with no significant past medical history who presented to the hospital with guaiac-positive stools. She underwent a colonoscopy which revealed a 4 cm ulcerated mass in the left colon at 30 cm. Pathology revealed squamous cell carcinoma (Figure 1) and PET scan showed persistent uptake in the sigmoid colon with no evidence of disease elsewhere. Patient underwent a laparoscopic sigmoid colectomy for the removal of the tumor and reported no complications.

## Results

The tumor mass consisted of clusters of infiltrating malignant cells in sheets with basaloid features (Figure 1). The tumor also was infiltrating beyond the muscularis propria into the pericolonic adipose tissue. Immunostains CK5/6 (Figure 2), p16 (Figure 3), p63 (Figure 4), p40 (Figure 5), and CK7 were reported positive. CK20, chromogranin, ER, GATA3, PAX8, and synaptophysin, CDX2, CD56 were negative.

Histopathology and immunohistochemical results at this point favored a SCC. A subsequent PET scan was negative. Given the lack of evidence of a metastatic lesion on PET scan alongside the pathology results, a primary SCC of the colon was favored.

### Figures

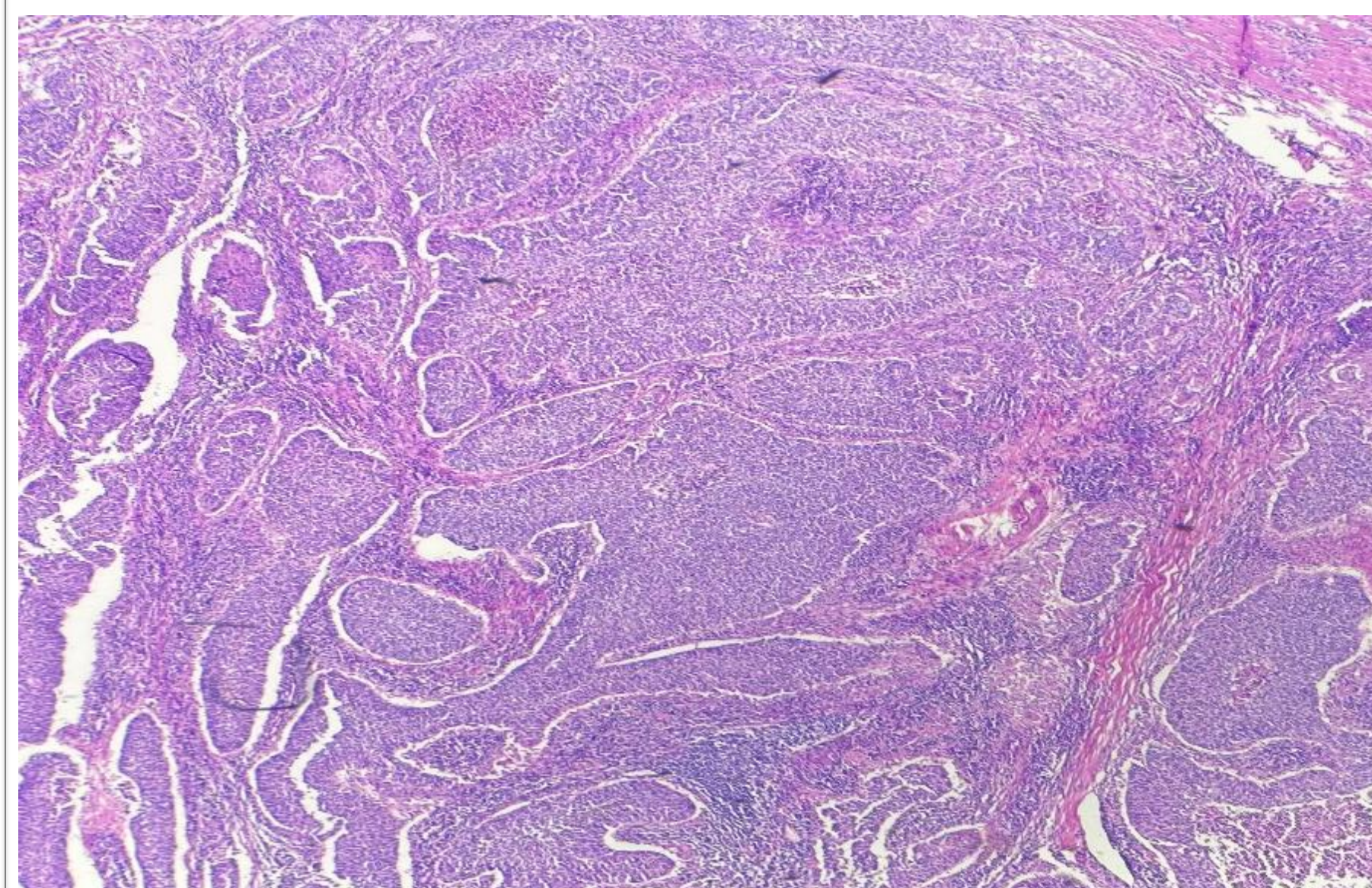


Figure 1.

## Results (Continued)

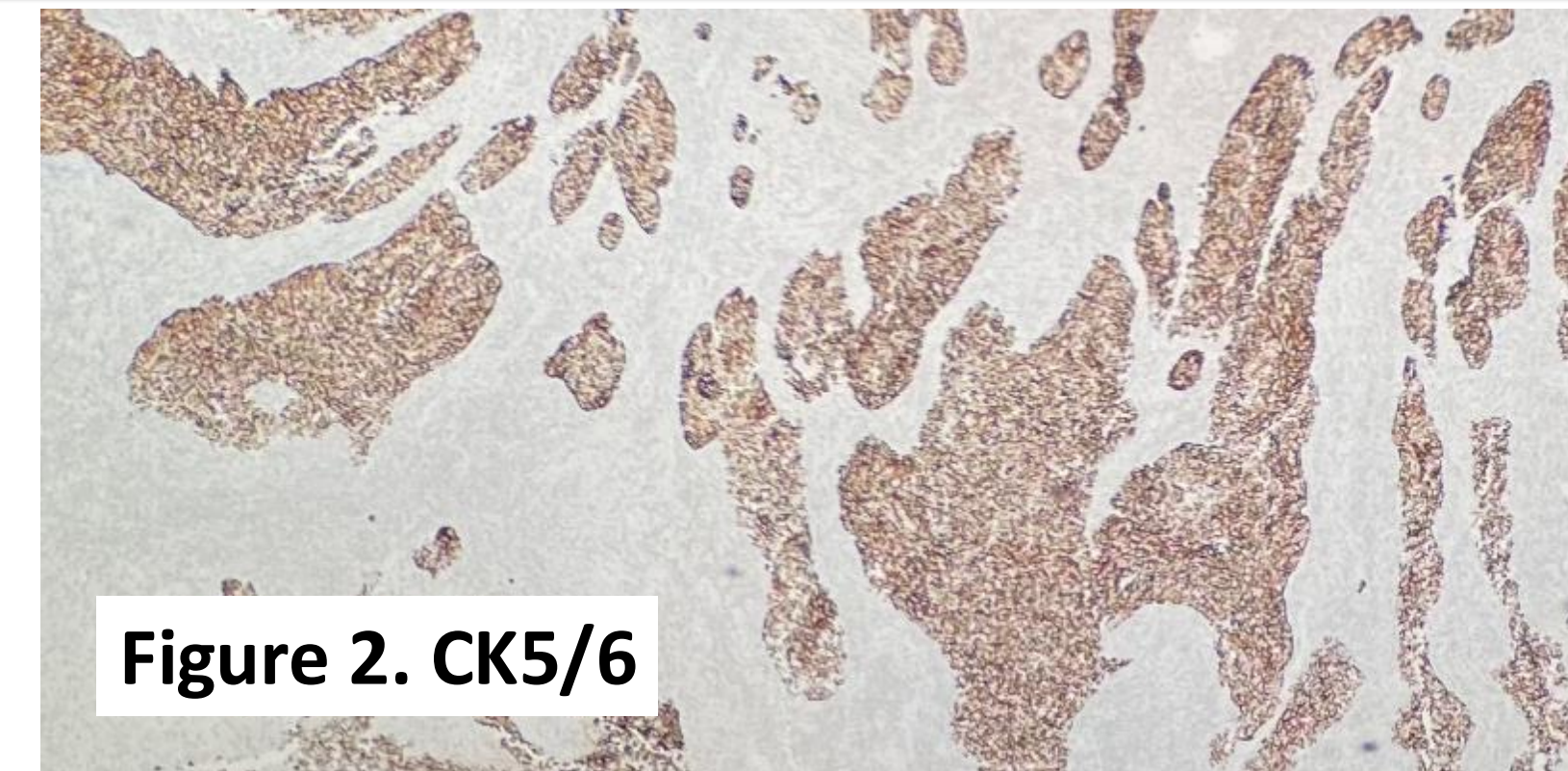


Figure 2. CK5/6

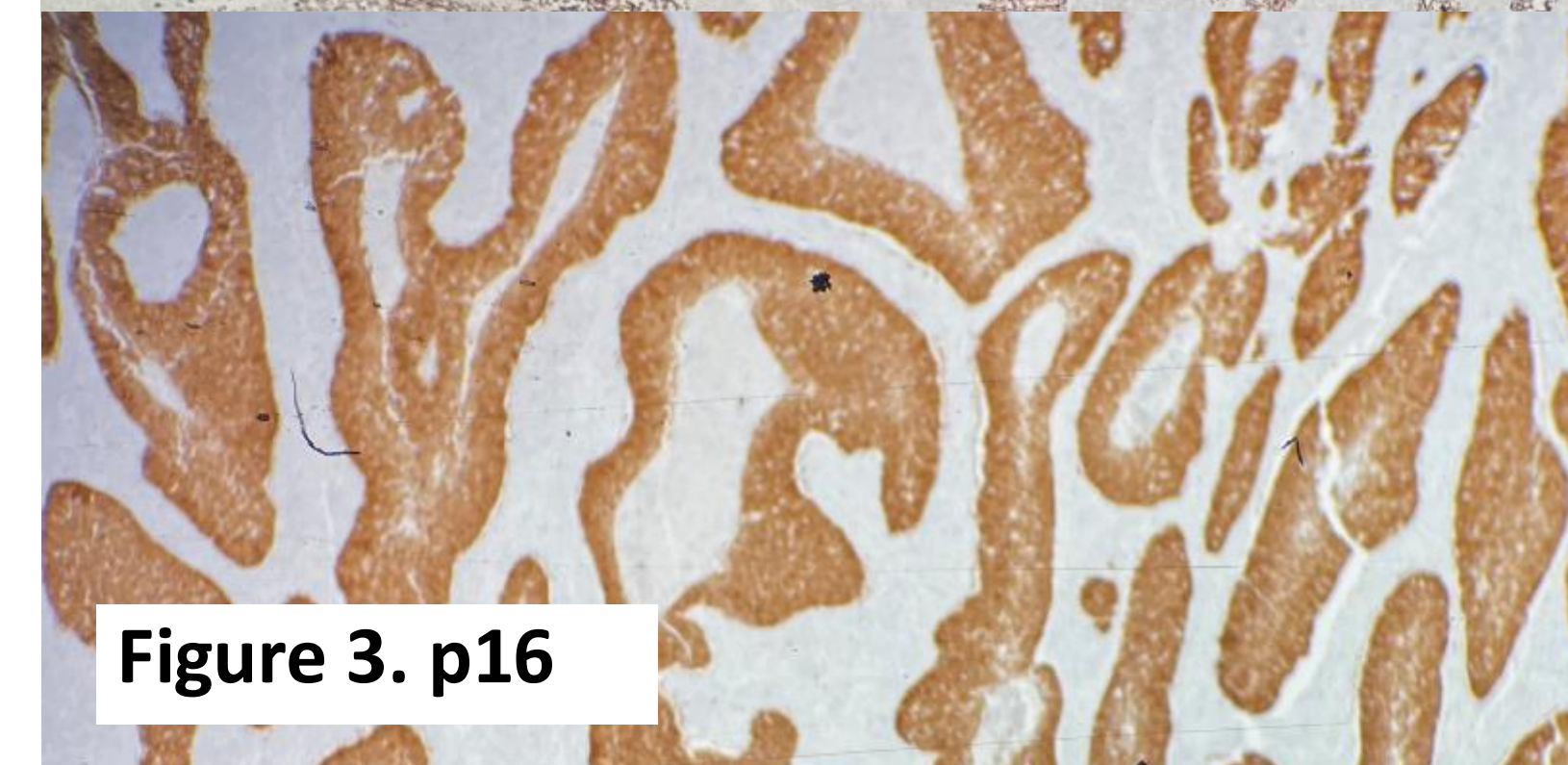


Figure 3. p16

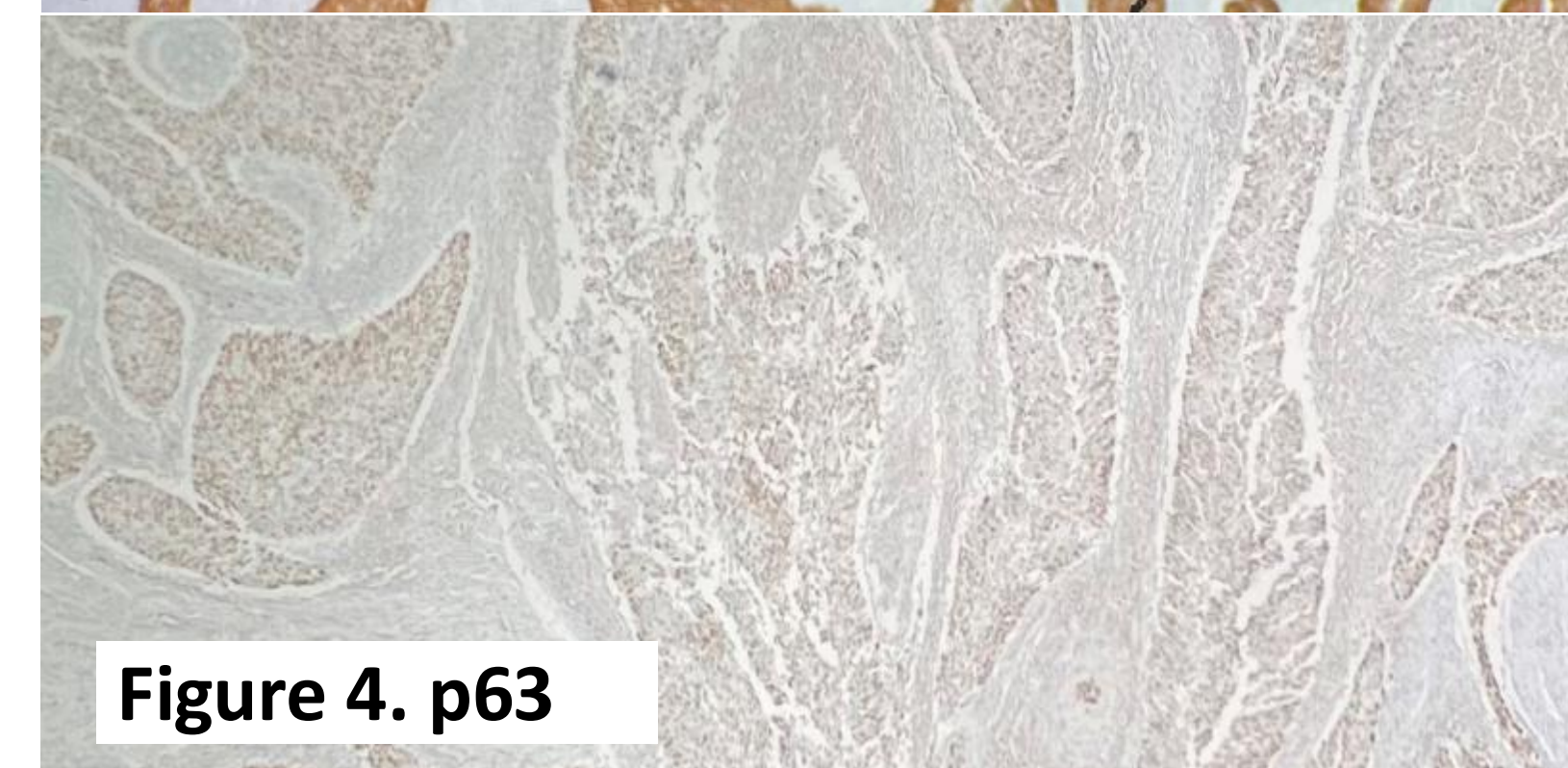


Figure 4. p63

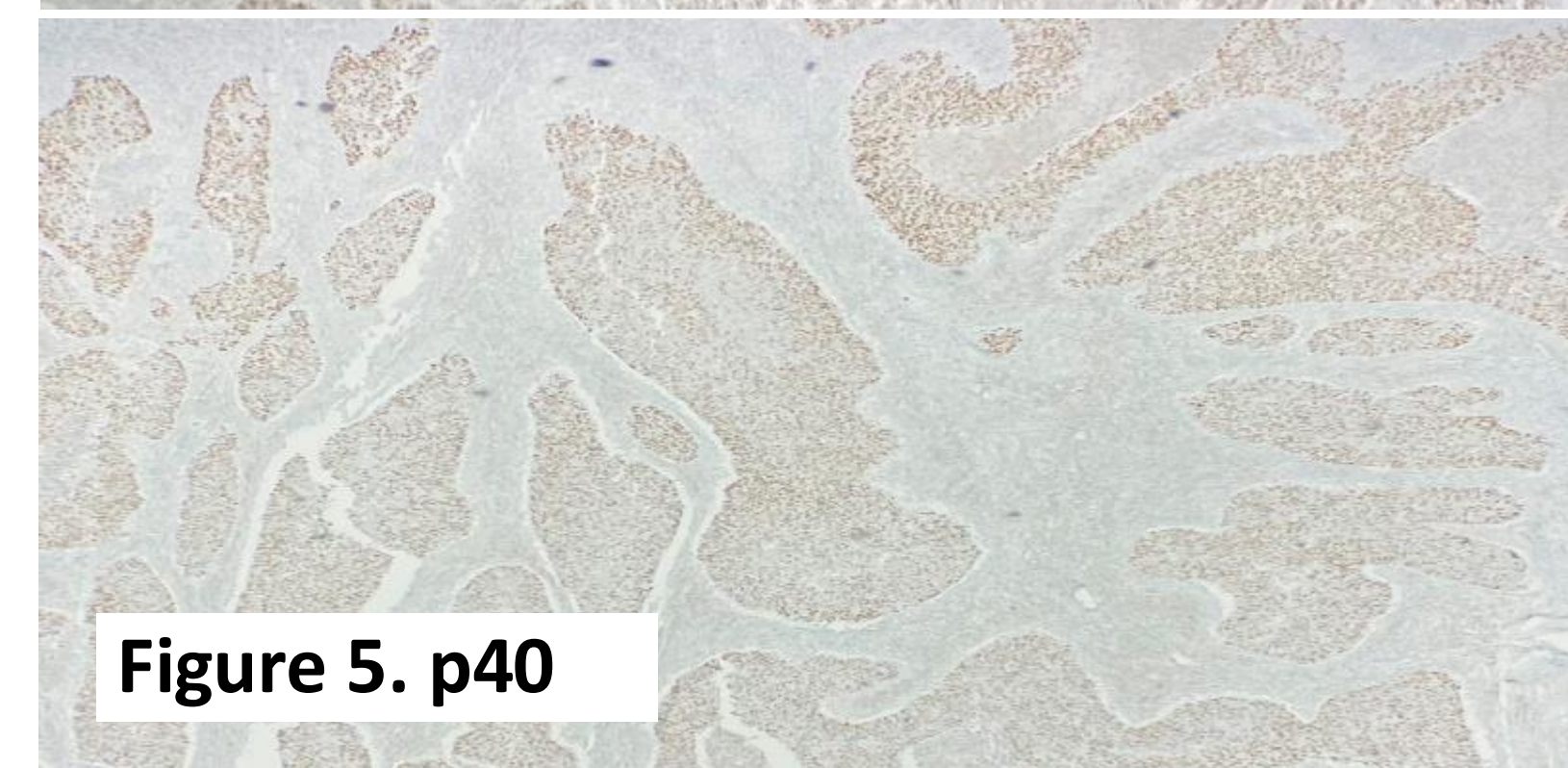


Figure 5. p40

## Conclusions

Colorectal SCC was first reported in 1919 and accounts for about 0.10 to 0.25 per 1000 of all colorectal cancers. Primary SCC of the sigmoid colon is an even rarer phenomenon due to the colon being dominated by glandular epithelium instead of squamous cells. Although the pathogenesis of SCC of the colon is not fully understood, one theory includes damage to the colonic mucosa by irritation, inflammatory bowel disease, infection (including HPV), and radiation, resulting in squamous cell metaplasia of the colorectal epithelium.

Diagnostic assessment is based on proctoscopy or colonoscopy, and imaging techniques, while confirmation is based on histological and immunohistochemical analysis. To diagnose a primary colorectal SCC there should be no indication of SCC in any other organ that could lead to colon metastasis, and no squamous-lined fistula tract should be present. Careful investigation of rectum and cervix to exclude SCC of anal origin with proximal extension, and cervical HPV related squamous cell lesions should be evaluated.

Due to its aggressive behavior, poor prognosis, and low incidence rate, there is no standard treatment plan for colorectal SCC but commonly used treatments include surgery, radiotherapy, and chemotherapy. Additional research is needed to establish standard optimal treatment protocols for this entity.

## References & Acknowledgements

To view the reference list, please scan the QR code below.

